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API

• 1984 •

Survey on Oil & Gas Expenditures

For Exploration,
Development and Production

American
Petroleum
Institute

It should be noted that Regina W. Rosen has been responsible for the design and implementation of the *Survey on Oil and Gas Expenditures*, as well as for the *Joint Association Survey on Drilling Costs*, and the *Quarterly Completion Report*. On October 31, 1986 she is retiring after 38 years of service to the API and to the industry. We wish to express our sincere appreciation for her hard work, for her guidance, and for her indomitable spirit these many years.

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Preface

The American Petroleum Institute's *Survey on Oil & Gas Expenditures* presents estimates for exploration, development, and production expenditures for the oil and gas industry. The API has undertaken the survey due to the termination of a similar survey published by the Bureau of the Census: the *Annual Survey of Oil and Gas*.

The Bureau of the Census survey on expenditures for oil and gas exploration, development, and production was conducted from 1973 through 1982. These surveys contained detailed information on these expenditures including data by company size. In January 1984, the API was advised that, for budgetary reasons, the Census Bureau would discontinue publication of the survey, upon completion of the 1982 report.

Prior to these Census surveys, the API conducted similar, but less detailed, surveys as a part of the *Joint Association Survey* for the years 1959 through 1975. After a three-year parallel test period with the Census survey, to ensure comparability and, in compliance with API policy not to publish duplicative surveys, the API discontinued publication of Section II of the *JAS*.

The API has made every effort to maintain continuity between the API *Survey on Oil and Gas Expenditures (SOGE)* and the *Annual Survey of Oil and Gas*. The definitions and instructions for the API Survey are almost identical to that used by the Census Bureau. The exception to this is that certain detailed information was not requested for the API Survey; but all major expenditure categories and their components have been included.

The purpose of the API Survey is to provide data on all expenditures committed to the search for, and the production of, oil and gas in the United States. Therefore, data on total fixed assets and other capital related accounts are not a part of this survey. Similarly, expenditures for lease and land acquisitions of producing acreage also have not been included.

The survey report, and the appendix which follows, should be studied to determine the scope, content, and comparability of this survey with prior surveys.

Washington, D.C.
October, 1986

OIL AND GAS INDUSTRY EXPENDITURES FOR Exploration, Development, and Production

Introduction. This is the second report since the American Petroleum Institute (API) resumed estimating expenditures for exploration, development, and production activities by the oil and gas industry. Prior to 1975, the API published estimates of upstream expenditures in *Section II* of the *Joint Association Survey*. The API ceased publication of *Section II* in 1975, after a three year concurrent test period with the Bureau of the Census' *Annual Survey of Oil and Gas*. The Census Bureau discontinued the publication of its survey with the publication of the 1982 report.

In response to the continued need for information on upstream expenditures by both industry and non-industry analysts, the API began publishing annual estimates beginning with the *1983 Survey on Oil and Gas Expenditures*. Every effort has been made to provide continuity between the *Survey on Oil and Gas Expenditure (SOGE)* and the prior API survey, both in scope and content. However, the data-user is cautioned to review the text of this report prior to attempting comparisons with *Section II* estimates.

The following section presents the results of the 1984 *SOGE* and comparisons with the 1983 Survey, while subsequent sections describe the methodology and survey responses and coverage.

1984 Estimated Expenditures. It is estimated that nearly $84 billion was spent in the search for and the production of oil and gas in the United States in 1984, a decrease of 1.6% from estimated 1983 levels. These expenditures include state and federal oil and gas taxes, but do not include income taxes. Table I below shows these expenditures by major categories for 1983 and 1984. Table II presents 1984 estimates for each of the major expenditure groups, subdividing the drilling and equipping expenditures from the other components. For comparison purposes, the 1984 and 1983 estimates are shown with the Census estimates, both as published for 1982 and restated on the SOGE/JAS basis.

Table I
Summary of 1984 and 1983 Expenditures by Major Categories
(MM$s)

	1984	1983
Exploration	$21,686	$21,737
Development.	26,966	26,500
Production	34,931	36,675
Total Expenditures	$83,583	$84,912

Table II
DRILLING AND EQUIPPING EXPENDITURES
1984 and 1983 SOGE ESTIMATES VS.1982 CENSUS
And 1982 Adjusted (JAS Basis)
(MM$s)

			1982	
			API	
Expenditures	1984	1983	Estimate	Census
Exploration:	$21,686	$21,737	$ 27,302	$27,858
Drilling & Equipping	7,006	7,017	12,380	12,936
All Other	14,680	14,720	14,922	14,922
Development:	$26,966	$26,500	$ 35,770	$25,859
Drilling & Equipping	18,103	18,396	27,001	15,578
All Other	8,863	8,104	8,769*	10,281
Production:	$34,931	$36,675	$ 38,067	$38,067
Direct Expenditures	15,368	14,707	14,405	14,405
Indirect Expenditures	19,563	21,968	23,662	23,662
Total Expenditures	$83,583	$84,912	$101,139	$91,784

*Less $1,512 -- acquisition of productive acreage

TABLE III
ESTIMATED EXPENDITURES FOR
Exploration, Development, and Production
By GEOGRAPHIC AREA

(Million Dollars)

	Total U. S.	Percentage Change	Lower 48 Onshore	Lower 48 Offshore	Total Alaska
EXPLORATION EXPENDITURES:					
Total Drilling & Equipping Expenditures	$ 6,857	-2.3	$ 3,448	$ 3,079	$ 330
Total Completed Well Costs	7,006	-1.5	3,652	2,909	445
Oil Wells	1,033	13.3	444	(D)	(D)
Gas Wells	1,392	-23.8	849	(D)	(D)
Dry Holes	4,581	4.8	2,359	(D)	(D)
Work-in-Progress	-149	NM	-204	170	-115
Acquiring Undeveloped Acreage	7,653	-5.1	2,988	2,985	1,680
Land Dept., Leasing & Scouting	499	8.0	436	52	11
Geological & Geophysical	2,706	2.0	1,997	496	213
Lease Rents	607	-1.5	525	58	24
Test Hole Contributions	97	56.5	52	24	21
Other, incl. Direct Overhead	1,677	23.2	NA	NA	NA
G & A Overhead	1,590	6.2	NA	NA	NA
Total Exploration Expenditures	$21,686	-0.2	NA	NA	NA
DEVELOPMENT EXPENDITURES:					
Total Drilling & Equipping Expenditures	$18,367	-0.2	$15,952	$ 2,037	$ 378
Total Completed Well Costs	18,103	0.9	16,049	1,697	357
Oil Wells	9,181	6.9	7,931	(D)	(D)
Gas Wells	5,947	-1.4	5,283	(D)	(D)
Dry Holes	2,975	-10.2	2,935	(D)	(D)
Work-in-Progress	264	NM	-97	340	21
Lease Equipment	4,744	8.5	2,693	1,008	1,043
Fluid Injection & Impr. Recov. Programs	1,451	-1.4	885	105	461
Other, incl. Direct Overhead	1,311	-0.5	NA	NA	NA
G & A Overhead	1,093	11.0	NA	NA	NA
Total Development Expenditures	$26,966	1.8	NA	NA	NA
PRODUCTION EXPENDITURES:					
Direct Operating Expenditures:					
Operating & Maintenance	$12,290	4.9	$10,229	$ 1,681	$ 380
Well Workovers	1,642	4.9	1,237	381	24
Other Direct Expenses	1,436	0.6	1,106	216	114
Total Direct Expenditures	$15,368	4.5	$12,572	$ 2,278	$ 518
Indirect Operating Expenditures:					
Windfall Profits Tax	$ 8,199	-19.7	$ 4,791	$ 3,191	$ 217
Other Taxes (excl. income taxes)	7,088	5.2	5,394	157	1,537
G & A Overhead	3,166	-2.9	NA	NA	NA
Other Indirect Expenditures	1,110	-36.6	773	190	147
Total Indirect Expenditures	$19,563	-4.8	NA	NA	NA
Total Production Expenditures	$34,931	-4.8	NA	NA	NA
TOTAL EXPENDITURES	$83,583	-1.6	NA	NA	NA

(D) Withheld to avoid disclosure NA Not Available NM Not Meaningful

TABLE IV
ESTIMATED U.S. OIL & GAS INDUSTRY EXPENDITURES FOR
Exploration, Development, and Production
By Company Size (24 Largest Companies)

(Million Dollars)

	24 Largest Companies	Percentage Change	Percent of Total	All Other Companies	Percentage Change
EXPLORATION EXPENDITURES:					
Total Drilling & Equipping Expenditures	$ 4,641	5.2	67.7	$ 2,216	-14.7
Total Completed Well Costs	4,459	-0.6	63.7	2,547	-2.9
Oil Wells	760	29.7	73.6	273	-16.3
Gas Wells	761	-26.3	54.7	631	-20.4
Dry Holes	2,938	2.5	64.1	1,643	9.2
Work-in-Progress	182	NM	NM	-331	NM
Acquiring Undeveloped Acreage	5,308	-8.9	69.4	2,345	4.7
Land Dept., Leasing & Scouting	197	7.1	39.5	302	8.6
Geological & Geophysical	1,965	-4.1	72.6	741	22.5
Lease Rents	326	-0.6	53.7	281	-2.4
Test Hole Contributions	46	0.0	47.4	51	218.8
Other, incl. Direct Overhead	1,127	34.7	67.2	550	5.0
G & A Overhead	684	-4.3	43.0	906	15.9
Total Exploration Expenditures	$14,294	-0.8	65.9	$ 7,392	0.8
DEVELOPMENT EXPENDITURES:					
Total Drilling & Equipping Expenditures	$ 5,257	3.4	28.6	$13,110	-1.5
Total Completed Well Costs	4,725	2.0	26.1	13,378	0.6
Oil Wells	2,981	9.4	32.5	6,200	5.7
Gas Wells	1,395	-9.2	23.5	4,552	1.3
Dry Holes	349	-6.2	11.7	2,626	-10.7
Work-in-Progress	532	NM	NM	-268	NM
Lease Equipment	3,409	12.9	71.9	1,335	-1.3
Fluid Injection & Impr. Recov. Programs	1,100	11.1	75.8	351	20.4
Other, incl. Direct Overhead	909	-0.3	69.3	402	-0.7
G & A Overhead	396	-11.2	36.2	697	29.3
Total Development Expenditures	$11,071	5.9	41.1	$15,895	-1.0
PRODUCTION EXPENDITURES:					
Direct Operating Expenditures:					
Operating & Maintenance	$ 6,927	3.3	56.4	$ 5,363	7.2
Well Workovers	998	5.7	60.8	644	3.7
Other Direct Expenses	1,026	5.7	96.0	410	-7.0
Total Direct Expenditures	$ 8,951	3.8	59.7	$ 6,417	5.5
Indirect Operating Expenditures:					
Windfall Profits Tax	$ 5,776	-19.2	64.9	$ 2,423	-21.0
Other Taxes (excl. income taxes)	4,798	2.5	67.7	2,290	11.3
G & A Overhead	1,688	-7.9	53.3	1,478	3.4
Other Indirect Expenditures	768	-38.1	69.2	342	-33.1
Total Indirect Expenditures	$13,030	-12.6	64.3	$ 6,533	-7.5
Total Production Expenditures	$21,981	-6.6	62.3	$12,950	-1.5
TOTAL EXPENDITURES	$47,346	-2.2	56.4	$36,237	-0.8

Largest 24 companies based on net oil and gas lease revenues

NM Not Meaningful

Table III, on page 2, provides further details of expenditures by component within each major expenditure group for the total U.S.; the Lower 48 States, onshore and offshore; and total Alaska.

Table IV provides expenditure data by component for the 24 largest companies, according to total oil and gas lease revenue, and for all other companies in the industry.

As shown in Table III, total exploration expenditures declined very slightly, by less than 1/4% from 1983 levels. Total completed well costs declined only 1.5% from 1983 levels, but these aggregate figures mask some of the changes which took place in 1984. While total well costs were little changed from 1983, a nearly 24% drop in spending on gas wells more than outweighed a 13% increase in spending on successful oil wells, and a 5% increase in dry hole costs. Increases in spending for overhead items totaled just over $400 million, almost exactly cancelling decreases in spending on undeveloped acreage.

Total development expenditures increased nearly $500 million, or 2% in 1984 over 1983 levels. In development activities too, substantial changes in the components are masked by the totals. Spending on oil wells increased about $600 million, or 7% from 1983 levels. Expenditures for gas wells were down more than $80 million, and for dry holes were down about $340 million, a more than 10% decline. Spending on lease equipment increased a substantial 8.5% over 1983 levels, but spending on fluid injection and improved recovery program declined by 1.4%.

Production expenditures declined nearly $1.75 billion or 5% in total. Direct operating costs increased $660 million or 4.5%, but this increase was more than outweighed oy a $2 billion, or nearly 20% drop in Windfall Profits Tax payments. Estimated "other" tax payments increased about $350 million, or 5.2% over 1983 levels.

Table IV provides estimates of expenditures by a group of the 24 largest companies ranked in terms of their net lease revenues, and, by difference from the total, expenditures by the rest of the industry. Exploration expenditures by the 24 largest companies declined by $112 million, less than 1%, from 1983 levels, while expenditures by the rest of the industry increased by the same percentage. Both groups reduced expenditures on gas wells, but only the larger companies increased their spending on oil wells. And while the 24 largest companies reduced their spending on acquiring acreage by almost 9%, the group of other companies increased their outlays by about 5%.

The group of the 24 largest companies increased their development expenditures by nearly 6% over 1983 levels. Drilling and equipping expenditures were up 2% over 1983 levels, a 9.4% increase in spending on oil wells more than offsetting declines in spending on gas wells and dry holes. The large companies also substantially increased their spending on lease equipment and improved recovery systems, up 13% and 11%, respectively.

Direct production expenditures by both groups increased in 1984, up 3.8% for the top 24 companies and 5.5% for the rest of the industry. Indirect production expenditures by both groups declined, due mainly to reductions in Windfall Profits Tax payments. Windfall Profits Tax payments by the 24 largest companies were down just over 19%, while payments by the rest of the industry were down 21%.

Total upstream expenditures by the 24 largest companies were down just over $1 billion compared to 1983 levels. If Windfall Profits Taxes are excluded, total upstream expenditures by the group were up $333 million, or 0.8%. Total upstream expenditures by the rest of the industry were down by $290 million, 0.8%, from 1983 levels. Again, if Windfall Profits Taxes are excluded, total expenditures increased $354 million, 1.1%.

Survey Methodology. The purpose of the API *Survey on Oil & Gas Expenditures (SOGE)* is to provide annual information on expenditure outlays incident to finding, developing, and producing oil and gas in the United States. These estimates are derived from a sampling of companies which responded to a questionnaire requesting detailed information by expenditure category and by geographic location.

Estimated expenditures are derived from these responses by regressing the relationships between oil and gas revenues and the expenditures within each category. Average expenditures are extrapolated to a total U.S. estimate, based on the number of non-reporting companies.

The *SOGE* expenditure estimates are not exactly comparable with earlier Census estimates. The primary difference between the Census and the API estimates is that the latter are based on the *Joint Association Survey (JAS)* results since the *JAS* provides a more complete estimate of drilling expenditures. Some drilling expenditures, primarily by small companies and/or non-operating companies, were not included in the Census data.

In comparing the *SOGE* estimates with 1982 and prior Census estimates, the data-user should be aware that total development expenditures as published by the Census include an expenditure item not requested by the *SOGE*. "Lease and Land Acquisitions of Producing Acreage" is not included in the API survey. The major reason for excluding

these transactions was that they are considered irrelevant to the purposes of this survey -- to provide annual expenditure estimates for finding, developing, and producing oil and gas in the United States.

The following sections of this report further describe the universe sample and methodology used to prepare the *SOGE* estimates.

Scope of Survey. As stated, the purpose of the *Survey on Oil and Gas Expenditures* is to estimate the total costs incurred in the search for and the production of oil and gas in the United States. This includes outlays by operating and non-operating companies as well.

In this case, non-operating companies are those companies which would not have been included in the *1982 Census of Mineral Industries* as being engaged in oil and gas field operations. These companies include those whose primary line of business is other than oil and gas extraction, but which do invest in oil and gas operations for their own account. Others engage in joint ventures with operating companies where their investment covers their share of the cost of exploration, development, and production, and they receive their share of the net revenues. Thus, if non-operating ventures are not included in the total universe, the procedure to gross-up reported expenditures to the total universe, on the basis of reported net revenue, would exclude their share of expenditures.

The Sample. The 1984 sample constitutes those companies replying to a questionnaire mailed to oil and gas operators throughout the United States. The mailing list used was developed for the *Joint Association Survey*. The questionnaire and the instructions for the *SOGE* are shown in the Appendix.

The 1984 estimated expenditures in the United States were derived from the data reported by 308 companies. The net revenues from oil and gas production reported by these companies accounted for 59.8 percent of the total estimated net revenues. Table V below presents the total estimated net revenues and the sample representation by geographic regions for 1984.

Expenditure Estimation Methodology. The procedures used for estimating total industry expenditures are predicated on the theory that companies with the same size revenue have similar size expenditures. The universe number of companies and their revenues were distributed into thirteen size classes. The respondent companies and their revenues were simularly distributed based on their total lease revenues. The number of non-reporting companies was derived by subtracting the number of sample companies and their respective revenues from the total number of companies and the revenues in each class interval.

Table V
Net Oil & Gas Lease Revenues
and Revenues Reported to SOGE
(million dollars)

	Total U. S.	Lower 48 Onshore	Lower 48 Offshore	Total Alaska
Net Revenue from Oil & Gas Production				
1984:	$112,631	$79,830	$22,877	$9,924
1983:	107,663	76,891	20,955	9,817
Net Oil & Gas Revenues Reported				
1984:	67,381	40,828	16,695	9,859
1983:	59,863	36,573	13,529	9,761
Percent Reported				
1984:	59.8	51.1	73.0	99.4
1983:	55.6	47.6	64.6	99.4

Regression equations, based on the correlation between revenues and the various expenditure items, were developed from the reported data for each class of expenditure. This analysis thus provided the average unreported expenditure for each class interval for each expenditure category. The number of non-reporting companies were applied to these average estimates to calculate the total unreported spending. The unreported totals were added to the sample to arrive at the total expenditures.

A technical report will be prepared, which will provide further information on the *SOGE* methodology. Upon its completion, a notice of availability will be sent to all *SOGE* subscribers.

Estimated Revenues. Expenditures for non-reporting companies were based on the relationship between revenues and expenditures of reporting companies. In order to develop this relationship, the API contracted with the Bureau of the Census for a report on the company distribution of the Value of Shipments data, which were included in the 1982 Quinquennial Census. These data are on a

grouped basis, and differ from that published by the Census, but which are still within the Census disclosure limits.

Parameters for the company size classes were developed, based on the extreme limits of the size of the smallest and largest companies, which were included in the 1982 Census. The companies included in the Census report were distributed into thirteen size class groupings along with the Value of Shipments attributable to these companies. The Value of Shipments percentage relationship of each size class to the total was then computed. Based on this distribution, the 1984 universe for gross revenues was developed.

The Energy Information Administration no longer publishes data on the value of production at the wellhead; therefore, these values were imputed from their published information on crude oil and lease condensate production and the average per barrel value of crude oil. The value of marketed natural gas production, published by the EIA, is the other component of gross revenue used for the *SOGE*.

Since the expenditures reported to the *SOGE* are on a net basis, it was necessary to reduce the gross revenue data to a net income basis. That is, the gross revenues for crude oil and natural gas production reduced by the amount of royalties paid by oil and gas operators. The assumption was made that royalty disbursements on average, account for approximately 15 percent of the gross revenues, although it is acknowledged that offshore royalty payments are higher. Table VI summarizes the gross and net revenues estimated for 1984.

Estimates for gross and net revenue data also were derived from published data available from EIA for the various geographic areas shown in the survey. For the Offshore area, data published by the Mineral Management Service was used to estimate royalty payments.

Crude oil and natural gas production revenues account for the major share of revenues available to the oil and gas producing industry. But, additional revenues also come from the royalty payments received by oil and gas operators and from other lease income incidental to oil and gas operations. Estimates for both royalty payments received and other lease income were developed from the sample data and extrapolated to a U.S. total. Table VII shows the 1984 total net lease revenues by source of revenue.

Table VI
Estimated Gross and Net Revenues From Crude Oil and Natural Gas Production
(million dollars)

	Gross Revenues	Net Revenues
1984:		
Crude Oil*	$ 84,102	$ 71,487
Natural Gas**	48,405	41,144
Total	$132,507	$112,631
1983:		
Crude Oil*	$ 83,048	$ 70,951
Natural Gas**	43,614	37,072
Total	$126,662	$107,663

Net revenues equals gross lease revenues less 15% royalty disbursements
*Imputed value of crude oil production from DOE data: 1984 Value = 3,249,696 (mbbls) x $25.88/bbl; 1983 Value = 3,170,999 (mbbls) x $26.19/bbl
**Reported value of marketed natural gas production

Table VII
Total Net Lease Revenues by Source
(million dollars)

	Total U.S.	Lower 48 Onshore	Lower 48 Offshore	Total Alaska
Estimated Net Revenues from Oil & Gas Production				
1984:	$112,631	$79,830	$22,877	$9,924
1983:	107,663	76,891	20,955	9,817
Other Lease Revenues				
1984:	637	550	56	31
1983:	722	608	46	68
Royalty Payments Received				
1984:	2,609	2,511	98	0
1983:	2,572	2,479	92	1
Total Revenues				
1984:	$115,877	$82,891	$23,031	$9,955
1983:	110,957	79,978	21,093	9,886

APPENDIX :

Oil and Gas Expenditure Survey :

Questionnaire and Instructions

1984 SURVEY ON OIL AND GAS EXPENDITURES

RETURN TO:

AMERICAN PETROLEUM INSTITUTE
STATISTICS DEPARTMENT—ATTN: SPS
1220 L STREET, N.W.
WASHINGTON, D.C. 20005

DUE DATE: June 15, 1986

GENERAL INSTRUCTIONS;

This survey covers domestic oil and gas field activities within the United States and adjacent offshore areas. It includes expenditures incident to finding, developing, and producing oil and gas in the United States. The expenditures reported should be the net company working interest share of the total expenditures for both operated and nonoperated properties. Expenditures should be reported only by those directly engaged in drilling and producing operations. Do not report expenditures (or revenues) applicable to gas processing plants or gas systems.

The revenues reported in this survey are the receipts (after royalty payments, production payment disbursements, and net profits disbursements) of producers from their net company interest in oil and gas production recorded in the books of account in the calendar year. Also included are certain non-operating revenues from other sources such as royalty interests, net profit interest receipts, production payment receipts, etc., owned in productive properties. Excluded from the reported revenues are the receipts of royalty owners not directly engaged in drilling and production.

REPORTING PROCEDURES:

This report should cover your company's operations on a calendar year basis for the survey year. Report your company's total net working interest expenditures as outlined in the "NOTES AND INSTRUCTIONS." (See separate booklet enclosed.)

Report only the expenditures recorded on the books of account (whether actually paid or accrued) in each category during the survey year. Report all such relevant expenditures, whether incurred for current expenses or on capital account. Include in overhead items only those resulting from cash expenditures during the year.

Exclude non-cash items such as depletion, depreciation, and amortization, etc., except that in General and Administrative Overhead, lines **22**, **33**, and **42**, depreciation may be charged for office buildings (provided the total cash expenditure for such facilities are not reported elsewhere).

Geographic areas included in this survey are for Total Alaska, including State and Federal offshore waters (column d), and for the Lower 48 onshore (column e) and offshore (column f). Offshore is defined to include leases seaward from the coastline. In general, the term "coastline" is defined as the line of ordinary low water along that portion of the coast which is in direct contact with the open sea, and the line marking the seaward limit of inland waters.

Please Correct any Errors in Mailing Label

COMPANY CONTACT:

Name: _____

Telephone: _____

Operator Code No.: _____

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1984 SURVEY ON OIL AND GAS EXPENDITURES

OPERATOR CODE NO.: _____

LINE NO.	ITEM (a)	Unit of measure (b)	NET COMPANY INTEREST BASIS			
			TOTAL UNITED STATES (c)	GEOGRAPHICAL AREA		
				TOTAL ALASKA (d)	LOWER 48	
					ONSHORE (e)	OFFSHORE (f)
1	**I. SALES VOLUMES** A. Total crude petroleum and condensate	Thousand barrels				
2	B. Natural gas	Million cubic feet				
3	**II. TOTAL LEASE REVENUES**	Thousand dollars				
4	A. Total crude petroleum and condensate					
5	B. Natural gas					
6	C. Income received from oil and gas royalties					
7	D. Other lease revenues from producing operations					
8	**III. TOTAL EXPENDITURES (CAPITALIZED AND EXPENSED)**					
9	A. Total exploration expenditures					
10	1. Total drilling & equipping expenditures					
11	a. Total completed well costs					
12	1. Dry holes					

13	2. Oil wells	Thousand dollars					
14	3. Gas wells						
15	b. Work-in-progress adjustment						
16	2. Lease and land acquisitions of nonproducing acreage						
17	3. Land department, leasing, and scouting						
18	4. Geological and geophysical						
19	5. Lease rents						
20	6. Test hole contributions						
21	7. Other exploration expenditures, including direct overhead						
22	8. General and administrative overhead not reported elsewhere						
23	B. Total development expenditures						
24	1. Total drilling & equipping expenditures						
25	a. Total completed well costs						
26	1. Dry holes						
27	2. Oil wells						
28	3. Gas wells						
29	b. Work-in-progress adjustment						
30	2. Lease equipment						
31	3. Fluid injection and improved recovery programs						
32	4. Other development expenditures, including direct overhead						
33	5. General and administrative overhead not reported elsewhere						

(Please complete Lines 34 through 45 on reverse side)

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1984 SURVEY ON OIL AND GAS EXPENDITURES

OPERATOR CODE NO.: _____

LINE NO.	ITEM (a)	Unit of measure (b)	NET COMPANY INTEREST BASIS			
			TOTAL UNITED STATES (c)	GEOGRAPHICAL AREA		
				TOTAL ALASKA (d)	LOWER 48	
					ONSHORE (e)	OFFSHORE (f)
34	C. Total production expenditures	Thousand dollars				
35	1. Total direct operating expenditures					
36	a. Operating and maintenance					
37	b. Well workovers					
38	c. Other direct expenses					
39	2. Total indirect operating expenditures					
40	a. Windfall profit tax					
41	b. Other taxes (excl. income taxes)					
42	c. General & administrative overhead					
43	d. Other indirect expenses					
44	**IV. OTHER OPERATOR INFORMATION** A. No. producing oil wells					
45	B. No. producing gas wells					

API SURVEY ON OIL AND GAS EXPENDITURES

NOTES AND INSTRUCTIONS

I. SALES VOLUMES

Line 1 — Total crude petroleum and condensate — Report volumes in thousand barrels (42 U.S. gallons at 60 degrees Fahrenheit). Include hydrocarbons which liquify at atmospheric pressure and temperature and are separated at lease surface facilities. Exclude liquid products derived from natural gas liquid plants which should be included with natural gas volumes on line **2**. Report the net company interest sales from all leases in which all or part of the working interest is owned.

Line 2 — Natural gas — Report the volume of raw natural gas including plant condensate volumes but excluding residue gas used for lease operations such as recycling or lifting. The volumes reported should be adjusted to a pressure base of 14.73 pounds absolute at 60 degrees Fahrenheit.

II. TOTAL LEASE REVENUES

Line 3 — Total lease revenues — Report the totals of lines **4**, **5**, **6**, and **7**.

Line 4 — Crude petroleum and condensate — Report values comparable to the related volumes reported in I. SALES VOLUMES. Do not include the value of liquid products derived from gas processed at natural gas plants which should be included in line **5**.

Report the revenues received from crude petroleum and lease condensate sales after royalty payments to others and net profit disbursements. Do not deduct production or severance taxes since these should be reported as expenditures.

Line 5 — Natural gas — Report values comparable to the volumes reported on line **2**. Lease revenue should include the lease share of revenue derived from the sale of plant liquids and residue gas and revenues from sales of unprocessed gas.

Report the revenues received from natural gas after royalty payments to others and net profit disbursements. Do not deduct production or severance taxes since these should be reported as expenditures.

Line 6 — Income received from oil and gas royalties — Report the net company interest in revenues from oil and gas royalties for the period. Includes revenues received from oil production payment interests, net profits interests, overriding royalties, etc. Do not include royalty revenue received where both a working and royalty interest exist on the same property. Such royalty interest will be reported on lines **4** and **5** as appropriate.

Line 7 — Other lease revenue from producing operations — Report the net company interest in the revenue received which is incidental to oil and gas operations, such as equipment rentals, receipts from services performed for others, sales of water, steam, CO_2, helium, etc. Do not include revenue attributable to operations of gas processing plants or gas systems, or receipts from sale of assets, producing properties, etc. Do not include revenue applicable to mined sulfur, oil shale, oil sands, uranium, or other mineral operations.

III. TOTAL EXPENDITURES (CAPITALIZED AND EXPENSED)

Line 8 — Total expenditures (Capitalized and expensed) — Report on this line the totals of lines **9**, **23**, and **34**. In this section, the classification of exploratory and development well expenditures should be based on the AAPG well classification as follows:

Exploratory wells include new-field wildcats, new pool wildcats, deeper pool tests, shallower pool tests, and outposts (extensions).

Development wells are those wells drilled to produce oil or gas from pools discovered by previous drilling.

Wells completed successfully in both oil and gas reservoirs should be reported as oil wells (lines 13 or 27 as applicable). Classification of completed wells as between oil and gas should be based on the appropriate State regulatory requirements. Exclude non-cash items such as depletion, depreciation, and amortization, etc., except that on lines **22**, **33**, and **42** depreciation may be charged for office buildings, etc. where the total cash expenditure for such facilities are not reported elsewhere. Exclude capitalized interest payments to detailed expenditures.

Line 9 — Total exploration expenditures — Report on this line the totals of line **10**, **16**, **17**, **18**, **19**, **20**, **21**, and **22**.

Line 10 — Total drilling and equipping expenditures — Report only the expenditures for drilling and equipping exploratory wells incurred during the year covered by this report. Include expenditures for **old wells drilled deeper and redrilled wells,** but exclude expenditures for stratigraphic and core test drilling which are to be reported on line **18**.

Note that lines **12**, **13**, and **14** include prior year expenditures for wells completed during the year covered by this report. However, line **15,** the "Work-in-progress adjustment," provides for an adjustment to these expenditures, so that line **10** shows drilling expenditures for the survey year only. That is, line **10** equals line **11** (the sum of lines **12, 13,** and **14**) plus or minus line **15.**

Note: For lines **12**, **13**, and **14** report the total cost of wells completed during the survey year. Include costs incurred during prior years.

Line 11 — Total completed well costs — Report on this line the totals of lines **12**, **13**, and **14**, the total cost of wells completed during the survey year, including costs incurred during prior years.

Line 12 — Dry holes — Report expenditures for casing, tubing, and wellhead fittings associated with exploratory dry wells; expenditures for roads, grading, etc.; expenditures for drilling platforms; and all other expenditures incident to exploratory dry wells. Reduce cost by the value of salvaged equipment capable of reuse.

Report the net company interest in all expenditures (reduced by the amount of outside cash contributions, such as bottom hole or dry hole money) for drilling exploratory dry holes.

Lines 13 and 14 — Oil wells and Gas wells — Report expenditures for casing, tubing, and wellhead fittings; expenditures for roads, grading, etc.; expenditures for drilling platforms; and all other expenditures incident to successful exploratory drilling. Exclude all expenditures for equipment beyond the Christmas tree and expenditures for all downhole pumping and artificial lift equipment which should be reported on line **30**.

Report the net company working interest in all expenditures (reduced by the amount of outside cash contributions, such as bottom hole money) for drilling successful exploratory wells.

Line 13 — Oil wells — Report the expenditures for exploratory wells completed for production where the result of the drilling was to find oil reserves.

Line 14 — Gas wells — Report the expenditures for exploratory wells completed for production where the result of the drilling was to find gas (other than casinghead gas) reserves.

Line 15 — Work-in-progress adjustment — Work-in-progress is defined as those drilling and equipping expenditures spent in prior years on current year completions minus the drilling and equipping expenditures in the current year on future year completions. The net amount (plus or minus) is the work-in-progress adjustment. Thus, if $10,000 were spent last year on a current year completion and $12,000 was spent this year on a well to be completed next year, the work-in-progress adjustment would be $2,000.

Report the net company interest in the amount of work-in-progress at the end of the survey year minus earlier years' drilling and equipping expenditures for wells completed during the year. If such prior year work-in-progress exceeds the current year work-in-progress, indicate a negative number by enclosing the figure in parentheses.

Line 16 — Lease and land acquisition of non-producing acreage — Report the net company interest in expenditures incurred during the report year for acquiring undeveloped acreage, including lease bonuses, advance initial rentals which, because of unusual circumstances, are actually in the nature of a bonus, and any other outlays necessary to acquire leases, mineral rights, and fee lands incident to oil and gas exploration. Exclude annual rentals and other lease carrying expenditures which should be reported on line **19**.

Line 17 — Land department, leasing, and scouting — Report the net company interest in all land department, scouting, and lease acquisition expenditures, except the actual outlays for purchase, land leasing, and rentals which should be reported on lines **16** and **19**.

Line 18 — Geological and geophysical — Report the net company interest in all expenditures for geological and geophysical exploration. Include expenditures for capital equipment identifiable with G & G and for core drilling (such as some types of slim hole stratigraphic tests) where the intention in advance of drilling is not to complete the well as a producing well, and/or when such tests are drilled in such a manner that productive completion is not possible.

Line 19 — Lease rents — Report the net company interest in expenditures made during the year for lease rentals and other expenditures for carrying leases, such as shut-in royalties and annual payments. Omit land department, leasing, and scouting expenditures, which should be reported on line **17**, and advance rentals which are actually in the nature of a bonus, which should be reported on line **16**.

Line 20 — Test hole contributions — Report the net company interest in all contributions made toward test wells, including dry hole money, bottom hole money, etc. Do not include the cost of acreage contributions.

Line 21 — Other exploration expenditures, including direct overhead — Report the net company interest in all expenditures not listed on lines **10** through **20** which relate directly to exploration for oil and gas, whether such expenditures are capitalized or expensed. Include expenditures for exploratory capital equipment constructed or purchased not included in lines **10** through **20**. Include direct overhead, especially district field exploration functions, e.g. district supervisory salaries; ad valorem taxes on non-producing leases; and taxes on buildings and equipment used for exploratory purposes.

Exclude exploration overhead costs which cannot be directly identified with exploratory activities undertaken during the period which should be reported on line **22**. Exclude all exploratory outlays not specifically devoted to oil and gas operations, such as for mined sulfur, oil shale, uranium, or other minerals.

Line 22 — General and administrative overhead not reported elsewhere — Report the net company interest in all general operating and administrative expenditures above the field level, which are applicable to exploration activities, excluding only those items which have been directly classified elsewhere. Include salaries, office expenditures, and research and development (R&D) expenditures.

If engaged in activities other than oil and gas, include under this heading only that portion of general and administrative expenditures applicable to oil and gas exploration. Do not include interest on investment or State and Federal income taxes.

General and administrative overhead reported in total should be distributed to exploration, development, and production on a basis of reasonable pro rata share or in accordance with your company's allocation practice.

Line 23 — Total development expenditures — Report on this line the totals on lines **24**, **30**, **31**, **32**, and **33**.

Line 24 — Total drilling and equipping expenditures — Report only the expenditures for drilling and equipping development wells incurred during the year covered by this report. Include expenditures for **old wells drilled deeper and redrilled wells,** but exclude expenditures for well workovers which are to be reported on line **37**. Also exclude expenditures for service wells which are to be reported lines **31** or **32**.

Note that lines **26**, **27**, and **28** include prior year expenditures for wells completed during the year covered by this report. However, line **29,** the "Work-in-progress adjustment," provides for an adjustment to these expenditures, so that line **24** shows drilling expenditures for the survey year only. That is, line **24** equals line **25** (the sum of lines **26, 27,** and **28**) plus or minus line **29**.

Note: For lines **26**, **27**, and **28** report the total cost of wells completed during the survey year. Include costs incurred during prior years.

Line 25 — Total completed well costs — Report on this line the totals of lines **26**, **27**, and **28**, the total cost of wells completed during the survey year, including costs incurred during prior years.

Line 26 — Dry holes — Report expenditures for casing, tubing, and wellhead fittings associated with development dry holes; expenditures for roads, grading, etc.; expenditures for drilling platforms; and all other expenditures incident to development dry wells. Reduce cost by salvage value of equipment capable of reuse.

Report the net company interest in all expenditures for drilling development dry holes.

Lines 27 and 28 — Oil wells and Gas wells — Report expenditures for casing, tubing, and wellhead fittings associated with successful development wells; expenditures for roads, grading, etc.; expenditures for drilling platforms; and all other expenditures incident to successful development drilling. Exclude all expenditures for equipment beyond the Christmas tree and expenditures for all downhole pumping and artificial lift equipment, which should be reported on line **30**. Also exclude expenditures for drilling injection wells which should be reported on line **31**.

Report the net company interest in all expenditures for drilling successful development wells.

Line 27 — Oil wells — Report the expenditures attributed to wells completed for production of crude petroleum within proved areas of oil reservoirs to depths of stratigraphic horizons known to be productive.

Line 28 — Gas wells — Report the expenditures attributed to wells completed for production of natural gas (other than casinghead gas) within proved areas of gas reservoirs to depths of stratigraphic horizons known to be productive.

Line 29 — Work-in-progress adjustment — Work-in-progress is defined as those drilling and equipping expenditures spent in prior years on current year completions minus the drilling and

equipping expenditures in the current year for future year completions. The net amount (plus or minus) is the work-in-progress adjustment. Thus, if $10,000 were spent last year on a current year completion and $12,000 was spent this year on a well to be completed next year, the work-in-progress adjustment would be $2,000.

Report the net company interest in the amount of work-in-progress at the end of the survey year minus earlier years' drilling and equipping expenditures for wells completed during the year. If such prior year work-in-progress exceeds the current year work-in-progress, indicate a negative number by enclosing the figure in parentheses. Exclude injection wells in progress which are to be reported on line **31**.

Line 30 — Lease equipment — Report the net company interest in all lease equipment expenditures beyond the Christmas tree installation, including flow lines, flow tanks, field separators, heater-treaters, production platforms, and related facilities. Include expenditures for all normal pumping and other artificial lift equipment, including downhole installation required for primary production.

Line 31 — Fluid injection and improved recovery programs — Report the net company interest expenditures in fluid injection and improved recovery programs which include gas injection, water injection, steam injection, miscible phase, in situ combustion, etc., associated with oil and gas production. Report expenditures for procuring and installing all facilities and for drilling service wells, or converting existing wells to service wells, associated with such programs.

Include pumps, compressors, engines, tankage, gathering and injection lines, treating facilities, special downhole and surface equipment, etc. Service wells include wells used for gas injection, water injection, steam injection, air injection, and water supply for injection.

Do not include expenditures for observation wells, salt water disposal wells, water supply wells, or other wells required for primary production operations, which should be included in line **32** with other development expenditures.

Line 32 — Other development expenditures, including direct overhead — Report the net company interest in all expenditures not included in lines **24**, **30**, or **31** which relate directly to development operations for oil and gas, whether such expenditures are capitalized or expensed. Include expenditures for capital equipment constructed or purchased.

Include direct overhead, especially at district and field level, where such overhead can be identified with the development functions (e.g. district supervisory salaries and taxes on buildings and equipment used for development operations).

Exclude overhead costs which cannot be directly identified with development activities undertaken during the year. Exclude all development outlays not specifically devoted to oil and gas operations, such as for mined sulfur, oil shale, uranium, or other minerals.

Line 33 — General and administrative overhead not reported elsewhere — Report the net company interest in all general operating and administrative expenditures above the field level, which are applicable to development activities, excluding only those items which can be directly classified on line **32**. Include salaries, office expenditures and R&D expenditures. If engaged in activities other than oil and gas, include under this heading only that portion of general and administrative expenditures applicable to oil and gas development operations. Do not include interest on investment or State and Federal income taxes.

General and administrative overhead reported in total should be distributed to exploration, development, and production on a basis of reasonable pro rata share or in accordance with your company's allocation practice.

Line 34 — Total production expenditures — Report on this line the totals of lines **35** and **39**. Do not include expenditures applicable to gas processing plants or gas systems.

Line 35 — Total direct operating expenditures — Report on this line the totals on lines **36**, **37**, and **38**.

Line 36 — Operating and maintenance — Report the net company interest in normal daily operating expenses such as wages and transportation for field personnel directly associated with oil and gas production; materials and supplies consumed; and field office expenses as well as surface repair and maintenance on lease equipment. Also report all other operating and maintenance expenses except workover expense which is reported on line **37**.

Line 37 — Well workovers — Report the net company interest in all expenditures directly related to well workovers including expensed material, contract labor, etc.

Line 38 — Other direct expenses — Report the company net interest in all other direct production expenses not included on lines **36** and **37**.

Line 39 — Total indirect operating expenses — Report on this line the totals on lines **40**, **41**, **42**, and **43**.

Line 40 — Windfall profit tax — Report the Federal excise tax expenses attributable to the Crude Oil Windfall Profit Tax Act of 1980, including adjustments such as those resulting from the net income provision.

Line 41 — Other taxes, excluding income taxes — Report the net company interest in total payments for ad valorem, production, or severance taxes to State and local governments. Do not reduce the value of crude oil and natural gas produced at the wellhead by such amounts. Exclude ad valorem taxes on undeveloped properties and property taxes on buildings and equipment used for exploratory purposes, which should be included on line **21**; ad valorem taxes on office buildings or other facilities used for development purposes, which should be included on line **32**. Do not include State or Federal income taxes or Federal excise taxes.

Line 42 — General and administrative overhead — Report the net company interest in all general operating and administrative expenditures above the field level which are applicable to production activities, except those which are included in line **35**.

General and administrative overhead reported in total should be distributed to exploration, development, and production on a basis of reasonable pro rata share or in accordance with your company's allocation practice.

Line 43 — Other indirect expenses — Report the net company interest in all indirect expenses applicable to producing operations which are not included in lines **40**, **41**, and **42**. Do not include interest on investment or State and Federal income taxes. Exclude expenses not related to oil and gas operations, such as those related to oil shale, mined sulfur, etc.

IV. OTHER OPERATOR INFORMATION

Line 44 — Number of producing oil wells — Report the number of producing oil wells in which your company has a net working interest. The number reported should be the sum of your fractional interest in the producing wells. Round the sum of the fractional interest for the number of wells to the nearest tenth of a well. Wells producing from both oil and gas reservoirs should be reported as producing oil wells.

Line 45 — Number of producing gas wells — Report the number of producing gas wells in which your company has a net working interest. The number reported should be the sum of your fractional interest in the producing wells. Round the sum of fractional interest for the number of wells to the nearest tenth. Producing gas wells are those wells in which one or more zones produce natural gas.

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